

### Abstract of the Disclosure

The invention relates to compounds of formula (I) or (II), which are of interest especially for inhibition of polymerization of amyloid  $\beta$  peptide, as model substances for synthesis of amyloid  $\beta$  peptide-ligands, as tools for the identification of other organic compounds with similar functional properties and/or as ligands for detection of amyloid deposits using e.g., positron emission tomography (PET). Formula (II) is:  $R_1 - A' - Y' - \text{Leu} - X' - Z' - B' - R_2$  in which  $X'$  means any group or amino acid imparting to the compound according to formula (I) the ability to bind to the KLVFF-sequence in amyloid  $\beta$  peptide, or two amino acids imparting the same ability, but with the proviso that one is not proline;  $Y'$  means any amino acid;  $Z'$  means any non-acidic amino acid;  $A'$  means a direct bond or an  $\alpha$ -amino acid bonded at the carboxyl terminal of the  $\alpha$ -carboxy group or a di-, tri-, tetra- or pentapeptide bonded at the carboxyl terminal of the  $\alpha$ -carboxy group;  $B'$  means a direct bond or an  $\alpha$ -amino acid bonded at the  $\alpha$ -nitrogen or a di-, tri-, tetra- or pentapeptide bonded at the  $\alpha$ -nitrogen of the N-terminal  $\alpha$ -amino acid;  $R_1$  is H or  $-\text{CO}-R_3$  bonded at the  $\alpha$ -amino group of  $A'$ ;  $R_2$  is H,  $-\text{OR}_4$  or  $\text{NR}_5\text{R}_6$ , all bonded to the  $\alpha$ -carboxyl group of the  $\alpha$ -carboxyterminal of  $B'$ ;  $R_3$  and  $R_4$  are straight or branched carbon chain of 1-4 carbon atoms;  $R_5$  and  $R_6$  are independently H, alkyl, cycloalkyl, aryl or substituted aryl or together are  $-(\text{CH}_2)_n-$  where n is 4-5; and  $R_1$  and  $R_2$  together can form a hydrocarbon ring or heterocyclic ring; all  $\alpha$ -amino acids being either D- or L-isomers.